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EXAMINER	
TRUJILLO, JAMES K	

ART UNIT	PAPER NUMBER
2116	

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/993,320	LEWIS ET AL.	
	Examiner	Art Unit	
	James K. Trujillo	2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40 and 69-81* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40 and 69-81* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment and Drawings filed 6/22/05.

2. Claims 1-40 and 69-81 are presented for examination. Applicants have canceled claims 41-68.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 27-29, 32, 75-77 and 79-80 are rejected under 35 U.S.C. 102(e) as being anticipated by Ha, U.S. Patent 6,175,919.

5. Regarding claim 27, Ha teaches a method of operating a communications system comprising:

a. initializing one or more associated communication devices from routines stored on a boot PROM (FR1-FR2, figure 4) of each of the one or more associated communication devices (BIOS ROM, figure 2, wherein PC1-PCn are associated communication devices figure 4, and a plurality of computers are upgraded, col. 5 lines 25-30);

b. receiving a device ID from each of one or more communication devices at a management device (HOST computer, figure 4 and figure 6);

c. receiving a device ID from each of the one or more communication devices (each device transfers a model ID to the host computer, col. 4, lines 50-53 and col. 5, lines 15-16);

d. initiating a firmware upgrade without an administrator (the personal computers request their BIOS to be upgraded col. 4, lines 28-37) based on the device ID of each of the one or more communication devices (upgrade of the BIOS is based according to the ID, col. 4, lines 45-60);

e. selecting a software program (BIOS) associated with the device ID of each of the one or more communication devices that require a firmware upgrade (col. 4, lines 50-60);

f. downloading the software program associated with the device ID to each of the one or more associated communication devices that require a firmware upgrade (col. 4, lines 57-60 and col. 5, line 19-24).

6. Regarding claim 28, Ha taught the method according to claim 27, as described above. Ha further teaches storing the downloaded software program into a RAM memory of each of the one or more communication devices. Ha further teaches a RAM memory coupled to the processor, where the processor stores the downloaded firmware into the RAM memory. Specifically, Ha

describes downloading firmware using a floppy disk, while the computer is normal operation, and while the computer is booting. Ha teaches that during the download of firmware from a floppy disk the firmware is downloaded into the RAM of the communication device. Ha describes that during the download of firmware during a boot that firmware is downloaded into "memory". This memory is interpreted to be RAM memory because is not the BIOS ROM, no mention of using the system ROM 11 is suggested. Therefore, downloading software from any source in Ha would follow that the same procedure would be done as taught by the download using a floppy disk. Also, figure shows that the RAMs are the only memories of the communication devices (PC1-PCn) connected to the communication port, implying that the RAM memories would receive the downloaded firmware. Thus, Ha teaches storing the download firmware into a RAM memory.

7. Regarding claim 29, Ha taught the method according to claim 27, as described above. Ha further taught storing the downloaded software program into a non-volatile machine usable storage media of each of the one or more communication devices (written into the BIOS ROM, col. 5, lines 20-24).

8. Regarding claim 32, Ha taught the method according to claim 27, as described above. Ha further teaches updating a repository of software programs stored on the management device (col. 4, lines 20-27 and col. 4, lines 41-53). Specifically, Ha teaches that the communications management device is used to update (upgrade) the communication devices when requested. It would necessitate that the store of firmware at the communications management device of Ha would need to be updated. If the store of firmware in Ha were not updated the management device of Ha would only be able to perform an update only once and this is not suggested in Ha.

In other words, Ha is directed toward updating firmware at remote computers by a repository on a Host HDD (figure 4) rather than using a floppy disk with updated firmware (col. 1, lines 16-31). Ha further teaches that an advantage of doing so is that it is less time-consuming and does not require using a floppy disk (col. 1, lines 32-39). In order to provide an update from the repository rather than a floppy disk it is necessary that the repository be updated otherwise there would be no way to update the firmware other than a first time, which is clearly not the intent of Ha.

9. Regarding claim 75, Ha teaches a machine-usable medium having machine-readable instructions stored thereon for execution by a processor of a telecommunications management device to perform the method comprising;

a. initializing one or more associated telecommunication devices from routines stored on a boot PROM (FR1-FR2, figure 4) of each of the one or more associated telecommunication devices (BIOS ROM, figure 2, wherein PC1-PCn are associated telecommunication devices figure 4, and a plurality of computers are upgraded, col. 5 lines 25-30);

b. receiving a device ID from each of one or more associated telecommunication devices at a telecommunications management device (HOST computer, figure 4 and figure 6);

c. initiating a firmware upgrade without an administrator (the personal computers request their BIOS to be upgraded col. 4, lines 28-37) based on the device ID of each of the one or more associated telecommunication devices (upgrade of the BIOS is based according to the ID, col. 4, lines 45-60);

d. selecting a firmware program (BIOS) associated with the device ID of each of the one or more telecommunication devices that require a firmware upgrade (col. 4, lines 50-60);

e. downloading the software program associated with the device ID to each of the one or more associated telecommunication devices that require a firmware upgrade (col. 4, lines 57-60 and col. 5, line 19-24).

10. Regarding claim 76, Ha taught the method according to claim 75, as described above. Ha further teaches wherein downloading firmware comprises downloading diagnostic software (BIOS is upgraded, col. 5, lines 17-24). Specifically, the BIOS is upgraded. BIOS contains a POST routine which is diagnostic software that tests a communication device.

11. Regarding claim 77, Ha taught the method according to claim 75, as described above. Ha further teaches updating a repository of software programs stored on the management device (col. 4, lines 20-27 and col. 4, lines 41-53). Specifically, Ha teaches that the telecommunications management device is used to update (upgrade) the telecommunication devices when requested. It would necessitate that the store of firmware at the telecommunications management device of Ha would need to be updated. If the store of firmware in Ha were not updated the management device of Ha would only be able to perform an update only once and this is not suggested in Ha.

In other words, Ha is directed toward updating firmware at remote computers by a repository on a Host HDD (figure 4) rather than using a floppy disk with updated firmware (col. 1, lines 16-31). Ha further teaches that an advantage of doing so is that it is less time-consuming and does not require using a floppy disk (col. 1, lines 32-39). In order to provide an update from the repository rather than a floppy disk it is necessary that the repository be updated

otherwise there would be no way to update the firmware other than a first time, which is clearly not the intent of Ha.

12. Regarding claim 79, Ha taught the method according to claim 75, as described above. Ha further teaches storing the downloaded software program into a RAM memory of each of the one or more telecommunication devices. Ha further teaches a RAM memory coupled to the processor, where the processor stores the downloaded firmware into the RAM memory. Specifically, Ha describes downloading firmware using a floppy disk, while the computer is normal operation, and while the computer is booting. Ha teaches that during the download of firmware from a floppy disk the firmware is downloaded into the RAM of the telecommunication device. Ha describes that during the download of firmware during a boot that firmware is downloaded into "memory". This memory is interpreted to be RAM memory because is not the BIOS ROM, no mention of using the system ROM 11 is suggested. Therefore, downloading software from any source in Ha would follow that the same procedure would be done as taught by the download using a floppy disk. Also, figure shows that the RAMs are the only memories of the telecommunication devices (PC1-PCn) connected to the communication port, implying that the RAM memories would receive the downloaded firmware. Thus, Ha teaches storing the download firmware into a RAM memory.

13. Regarding claim 80, Ha taught the method according to claim 27, as described above. Ha further taught storing the downloaded software program into a non-volatile machine usable storage media of each of the one or more telecommunication devices (written into the BIOS ROM, col. 5, lines 20-24).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claims 33 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha.

16. Regarding claim 33, Ha taught the device according to claim 32, as described above. Ha does not disclose wherein the repository of software programs is updated remotely across a communications link of the communications system. Ha only teaches that the repository is updated.

The examiner takes official notice of updating software across a communications link of the communication system. It is well known to those of ordinary skill in the art that software updated remotely across a communications link provides the advantage of being faster to update. Specifically, no extra media such as floppy disks, CDs, or the like are needed to be sent to remote locations for software updates, which takes time to transport. Software would be available virtually instantaneously over a communications network.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and the knowledge of updating software remotely across a communications link before them at the time the invention was made, to modify the system of Ha by updating his repository remotely over a communication link of the communication system.

One of ordinary skill in the art would have been motivated to make the modification for the purposes of being able to update the repository of Ha faster as those of ordinary skill understand and appreciate.

17. Regarding claim 78, claim 78 is rejected for the same reasons applied accordingly as set forth in the rejection of claim 33.

18. Claims 1-5, 7, 10, 12-13,15-19, 30, 69-73 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha, U.S. Patent 6,175,919 in view of Itoh, U.S. Patent 6,795,912.

19. Regarding claim 1, Ha teaches a method of operating a communication device with a boot PROM (BIOS ROM 12, figure 1), comprising:

a. initializing the communication device (general computer system, figures 1 and 2) from routines stored on the boot PROM (col. 5, lines 5-16);

b. reading a device ID indicating a model from the communication device (col. 5, lines 15-16);

c. sending the device ID to a management (host computer) device over a communication link (col. 5, lines 15-16);

d. initiating a firmware upgrade without administrator intervention based on the device ID (the personal computers request the BIOS to be upgraded, col. 4, lines 28-38, and the BIOS is upgraded corresponding to the model IDs);

e. selecting a firmware at the management device (col. 4, lines 54-57);

f. downloading the firmware to the communication device (col. 5, lines 17-19);

g. running the firmware on the communication device (by rebooting the computer, col. 5, lines 23-24).

Ha does not disclose wherein the device ID indicates a revision number from the communication device.

Itoh teaches wherein a device ID indicates a model number and a revision number (model number and version number of BIOS, col. 18, lines 36-42). The system of Itoh is similar to that of Ha in that Itoh also teaches a system that updates firmware for a particular device. As taught by Itoh using both the model number and revision number provides the advantage of determining if the of the firmware is necessary (col. 18, lines 40-42).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Itoh before them at the time the invention was made, to modify the device ID of Ha to include revision number to obtain a device ID indicating a model and a revision number as taught the by Itoh.

One of ordinary skill in the art would have been motivated to make this modification in order to determine to if the update is necessary.

20. Regarding claim 2, Ha together with Itoh taught the method according to claim 1 as described above. Ha further teaches storing the downloaded firmware into a RAM memory (col. 3, lines 58-64, col. 4, lines 57-63, col. 5, lines 18-24 and figure 4). Specifically, Ha describes in one embodiment downloading firmware using a floppy disk, while the computer is normal operation, and while the computer is booting. Ha teaches that during the download of firmware from a floppy disk the firmware is downloaded into the RAM of the communication device. Ha describes that during the download of firmware during a boot that firmware is downloaded into

"memory". This memory is interpreted to be RAM memory because is not the BIOS ROM, no mention of using the system ROM 11 is suggested. Therefore, downloading software from any source in Ha would follow that the same procedure would be done as taught by the download using a floppy disk. Also, figure shows that the RAMs are the only memories of the communication devices (PC1-PCn) connected to the communication port, implying that the RAM memories would receive the downloaded firmware. Thus, Ha teaches storing the download firmware into a RAM memory.

21. Regarding claim 3, Ha together with Itoh taught the method according to claim 1 as described above. Ha further teaches storing the downloaded firmware into a non-volatile machine usable storage media (BIOS ROM, col. 5, lines 22-23).

22. Regarding claim 4, Ha together with Itoh taught the method according to 3 as described above. Ha further teaches wherein the non-volatile machine usable storage media is selected from the group consisting of a flash memory device, an electrically erasable programmable read only memory (EEPROM) device, and a one time programmable (OTP) device (a flash memory device, col. 3, lines 60-61).

23. Regarding claim 5, Ha together with Itoh taught method according to claim 3, as described above. Ha further taught wherein the boot PROM routines are stored on the non-volatile machine usable storage media (the POST routines of the BIOS are executed during the booting of the device, col. 5 lines 5-9).

24. Regarding claim 7, Ha together with Itoh taught the method according to claim 1, as described above. Itoh further teaches sending a version identifier of a stored firmware from a

non-volatile machine usable storage media to the management device (version number is transmitted in order to receive a new BIOS, col. 18 lines 28-36).

25. Regarding claim 10, Ha together with Itoh taught the method according to 1 as described above. Ha further teaches wherein the boot PROM is selected from the group consisting of a flash memory device, an electrically erasable programmable read only memory (EEPROM) device, and a one time programmable (OTP) device (a flash memory device, col. 3, lines 60-61).

26. Regarding claim 12, Ha together with Itoh taught the method according to claim 1 as described above. Ha further teaches wherein downloading firmware comprises downloading diagnostic software (BIOS is upgraded, col. 5, lines 17-24). Specifically, the BIOS is upgraded. BIOS contains a POST routine, which is diagnostic software that tests a communication device.

27. Regarding claim 13, Ha teaches a method of operating a communications management device (Host computer, figure 4), comprising

a. initializing one or more associated communication devices from routines stored on a boot PROM (BIOS ROMs, FR1-FR2, figure 4) of each of the one or more associated communication devices (figure 2, wherein PC1-PCn are associated communication devices figure 4, and a plurality of computers are upgraded, col. 5 lines 25-30);

b. receiving a device ID from each of the one or more associated communication devices (each device transfers a model ID to the host computer, col. 4, lines 50-53 and col. 5, lines 15-16);

c. initiating a firmware upgrade without an administrator (the personal computers request their BIOS to be upgraded col. 4, lines 28-37) based on device ID of each of the one or more associated communications devices (col. 4, lines 45-60);

d. selecting a software program (BIOS) associated with the device ID of each of the one or more associated communication devices that require a firmware upgrade (corresponding BIOS Images col. 4, lines 54-60).

e. downloading the software program associated with the device ID to each of the one or more associated communication devices that require (BIOS is transferred to the communication devices, col. 4, lines 57-60 and col. 5, line 19-24).

Ha does not expressly disclose receiving a device ID from each of the one or more associated communication devices ***to determine whether any of the one or more associated devices require a firmware upgrade*** [emphasis added].

Itoh teaches receiving a device ID (verifying a model and production date) from each of the one or more associated communication devices (computer) to determine whether any of the one or more associated devices require a firmware upgrade (col. 18, lines 36-42). The system of Itoh is similar to that of Ha in that Itoh also teaches a system that updates firmware for a particular device. As taught by Itoh using both the model number and revision number provides the advantage of determining if the of the firmware is necessary thereby reducing any unnecessary downloads (col 18, lines 38-42).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Itoh before them at the time the invention was made, to modify the device ID of Ha to include revision number to obtain a device ID indicating a model and a revision number as taught the by Itoh.

One of ordinary skill in the art would have been motivated to make this modification in order to determine to if the update is necessary thereby reducing any unnecessary downloads.

28. Regarding claim 15, Ha taught the method according to claim 13, as described above. Ha further teaches wherein receiving a device ID from each of the one or more associated communication devices further comprises receiving a device ID that identifies the communication model (col. 4, lines 50-53 and col., lines 15-16).

29. Regarding claim 16, Ha taught the method according to claim 13 as described above. Ha further teaches wherein receiving a device ID from each of one or more communication devices further comprises receiving a device ID that identifies the communication device model (S51 and S64 in figures 5 and 6 respectively along with corresponding text).

Itoh further teaches wherein a device ID indicates a model number and a revision number (model number and version number of BIOS, col. 18, lines 36-42).

30. Regarding claim 17, Ha taught the method according to claim 13, as described above. Ha teaches wherein receiving a device ID from each of the one or more associated communication devices further comprises receiving a device ID that identifies the software program for the communication device (BIOS is downloaded to the communication devices that corresponds to the ID, col. 4, lines 50-57).

31. Regarding claim 18, Ha taught the method according to claim 13, as described above. Ha further teaches wherein receiving a device ID fro each of the one or more communication devices further comprises receiving a device ID that uniquely identifies one or more software routines for the communication device (BIOS is downloaded to the communication devices that corresponds to the IDs, BIOS contains one or more software routines for operating devices, col. 4, lines 54-60).

32. Regarding claim 19, Ha taught the method according to claim 13, as described above. Ha further teaches updating a store of firmware (on the HDD) at the communications management device (col. 4, lines 20-27 and col. 4, lines 41-53). Specifically, Ha teaches that the communications management device is used to update (upgrade) the communication devices when requested. It would necessitate that the store of firmware at the communications management device of Ha would need to be updated. If the store of firmware in Ha were not updated the management device of Ha would only be able to perform an update only once and this is not suggested in Ha.

33. Regarding claim 30, Ha teaches the method according to claim 27, as described above. Ha teaches sending an identifier from a non-volatile machine usable storage media of each of the one or more communication devices to the management device. Ha does not disclose that the identifier is or has a ***version identifier of a stored software program*** [emphasis added].

Itoh teaches wherein a device ID indicates a model number and a revision number (model number and version number of BIOS, col. 18, lines 36-42). The system of Itoh is similar to that of Ha in that Itoh also teaches a system that updates firmware for a particular device. As taught by Itoh using both the model number and revision number provides the advantage of determining if the of the firmware is necessary thereby reducing any unnecessary downloads.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Itoh before them at the time the invention was made, to modify the device ID of Ha to include revision number to obtain a device ID indicating a model and a revision number as taught the by Itoh.

One of ordinary skill in the art would have been motivated to make this modification in order to determine to if the update is necessary thereby reducing any unnecessary downloads.

34. Regarding claim 69, Ha teaches a machine-usable medium having machine-readable instructions stored thereon for execution by a processor of a telecommunication device to perform a method comprising;

a. initializing the telecommunication device (general computer system, figures 1 and 2) from routines stored on the boot PROM (col. 5, lines 5-16);

b. reading a device ID indicating a model from the telecommunication device (col. 5, lines 15-16);

c. sending the device ID to a management (host computer) device over a communication link (col. 5, lines 15-16);

d. initiating a firmware upgrade without an administrator (the personal computers request their BIOS to be upgraded col. 4, lines 28-37) based on the device ID (upgrade of the BIOS is based according to the ID, col. 4, lines 45-60);

e. selecting a firmware for the telecommunications device at the management device (col. 4, lines 54-57);

f. downloading the firmware to the telecommunication device (col. 5, lines 17-19); and

g. running the firmware on the telecommunication device (by rebooting the computer, col. 5, lines 23-24).

Ha does not disclose wherein the device ID indicates a revision number from the communication device.

Itoh teaches wherein a device ID indicates a model number and a revision number (model number and version number of BIOS, col. 18, lines 36-42). The system of Itoh is similar to that of Ha in that Itoh also teaches a system that updates firmware for a particular device. As taught by Itoh using both the model number and revision number provides the advantage of determining if the of the firmware is necessary thereby reducing any unnecessary downloads.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Itoh before them at the time the invention was made, to modify the device ID of Ha to include revision number to obtain a device ID indicating a model and a revision number as taught the by Itoh.

One of ordinary skill in the art would have been motivated to make this modification in order to determine to if the update is necessary thereby reducing any unnecessary downloads.

35. Regarding claims 70-73, Ha together with Itoh taught the claimed method of operating a communication device therefore he also teaches claimed machine-usable medium.

36. Regarding claim 81, Ha teaches a telecommunications device (one of PC1-PCn) having a boot PROM (BIOS ROMs FR1-FRn), a communications interface (communications port, figure 2), a device ID storage media (not explicitly shown but must exist to store model ID that is obtained from the communications device of Ha, col. 4, lines 50-53 and col. 5, lines 15-16), and processor coupled to the boot PROM (CPU, figure 2), the device storage media (not shown but must exist in or for the device to obtained) and the communications interface (logically coupled, figure 2). Ha together with Itoh taught the claimed medium to perform the method, as in claim 69, therefore together they teach the method.

37. Claims 6, 8-9, 11 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha and Itoh in view of Ishibashi et al., U.S. Patent 6,654,820.

38. Regarding claim 6, Ha together with Itoh taught the method according to claim 3 as described above. Ha further taught wherein the boot PROM routines are stored on the non-volatile machine usable storage media (the POST routines of the BIOS are executed during the booting of the device, col. 5 lines 5-9).

Neither Ha nor Itoh disclose wherein the device ID is stored on the non-volatile machine usable storage media.

Ishibashi teaches a device ID stored on a non-volatile machine usable storage media (the device ID is stored on a BIOS-ROM and managed by a BIOS, col. 6 lines 17-35 and figure 2). Ishibashi teaches a system that is similar to that of Ha in that both systems have a device ID and both use the BIOS for some type of management of the device ID. It appears that the feature of having the device ID stored on the BIOS provides the advantage of easy access to the device ID because the BIOS is used to control hardware. Also, the BIOS-ROM would maintain the information when power is removed allowing the device ID to remain when the power is removed. Further, Ishibashi teaches that the protection of digital contents against improper use is improved (col. 1 lines 43-48 and col. 3, lines 27-35)

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh and Ishibashi before them at the time the invention was made, to modify the BIOS-ROM of Ha to include storing the device ID.

One of ordinary skill in the art would have been motivated to make this modification in order provide easy access to the device ID. This would be especially true when modifying Ha

because only the BIOS-ROM would need to be accessed when booting the computer rather than more than one other memory device holding the information reducing the number of reads during the process, allowing the ID to be retained after power is removed, and improve the protection of digital contents against improper use.

39. Regarding claim 8, Ha together with Itoh taught the method according to claim 1 as described above.

Neither Ha nor Itoh disclose wherein the device ID is read from the machine readable storage media.

Ishibashi teaches wherein a device ID is read from a machine readable storage media (the device ID can be obtained from a machine readable storage media "BIOS-ROM" and managed by a BIOS, col. 6 lines 46-54 and figure 2). Ishibashi teaches a system that is similar to that of Ha in that both systems have a device ID and both use the BIOS for some type of management of the device ID. It appears that the feature of having the device ID stored on the machine readable storage media "BIOS-ROM" provides the advantage of easy access to the device ID because the BIOS is used to control hardware. Further, the BIOS-ROM would maintain the information when power is removed. . Further, Ishibashi teaches that the protection of digital contents against improper use is improved (col. 1 lines 43-48 and col. 3, lines 27-35).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh and Ishibashi before them at the time the invention was made, to modify the machine readable storage media of Ha to include reading the device ID from the machine readable storage media.

One of ordinary skill in the art would have been motivated to make this modification in order provide easy access to the device ID. This would be especially true when modifying Ha because only the machine readable storage media would need to be accessed when booting the computer rather than more than one other memory device holding the information reducing the number of read during the process, allowing the ID to be retained after power is removed, and improve the protection of digital contents against improper use.

40. Regarding claim 9, Ha together with Itoh taught the method according to 8 as described above. Ha further teaches wherein the ID storage device is selected from the group consisting of a flash memory device, an electrically erasable programmable read only memory (EEPROM) device, and a one time programmable (OTP) device (a flash memory device, col. 3, lines 60-61).

41. Regarding claim 11, it is rejected for the reasons set forth in the rejection of claim 6.

42. Regarding claim 74, Ha together with Itoh taught the claimed method of operating a communication device therefore he also teaches claimed machine-usable medium.

43. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ha together with Itoh in view of Treu, U.S. Patent 5,245,615.

44. Regarding claim 14, Ha together with Itoh taught the method according to claim 13, as described above. Ha does not disclose receiving a device ID that uniquely identifies the communication device.

Treu teaches a communication device (a personal computer 10, figure 1) having an ID that uniquely (system unique ID, col. 6, lines 51-55) identifies the communication device. Like Ha and Itoh, the communication device of Treu is a personal computer. Also like Ha and Itoh,

Treu uses model number for device identification. Treu further teaches having a device ID that uniquely identifies a communication device has the advantage of identifying the device for maintenance tracking and resource characteristics of functions associated with the communication device.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh and Treu before them at the time the invention was made, to modify the device ID of Ha to include a device ID that uniquely identifies the communication device as taught by Treu.

One of ordinary skill in the art would have been motivated to make the modification in order to achieve the advantage of identifying the device for maintenance tracking and resource characteristics of functions associated with the communications device.

45. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ha in view of Ishibashi et al., U.S. Patent 6,654,820.

46. Regarding claim 31, Ha taught the device according to claim 27, as described above. Ha does not disclose wherein the boot PROM and the device ID are stored on a single machine-readable storage medium.

Ishibashi teaches a device ID stored on a non-volatile machine usable storage media on which the boot PROM is also located (the device ID is stored on a BIOS-ROM and managed by a BIOS, col. 6 lines 17-35 and figure 2). Ishibashi teaches a system that is similar to that of Ha in that both systems have a device ID and both use the BIOS for some type of management of the device ID. It appears that the feature of having the device ID stored on the BIOS provides the advantage of providing fast and easy access to the device ID because the BIOS is the used to

control hardware and is the first firmware used when the activating the communication device. Further, the BIOS-ROM would maintain the information when power is removed. Further, Ishibashi teaches that the protection of digital contents against improper use is improved (col. 1 lines 43-48 and col. 3, lines 27-35).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh and Ishibashi before them at the time the invention was made, to modify the BIOS-ROM of Ha to include storing the device ID.

One of ordinary skill in the art would have been motivated to make this modification in order provide easy access to the device ID. This would be especially true when modifying Ha because only the BIOS-ROM would need to be accessed when booting the computer rather than more than one other memory device holding the information reducing the number of reads during the process, allowing the ID to be retained after power is removed, and improve the protection of digital contents against improper use.

47. Claims 20-22 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha in view of Itoh and Applicant's Admitted Prior Art (AAPA).

48. Regarding claim 20, Ha teaches a method with a management card (on the Host computer, figure 4) and at least one communication card (card on the personal computer, figure 4) comprising:

a. initializing one or more associated communication devices from routines stored on a boot PROM (FR1-FR2, figure 4) of each of the one or more associated communication

devices (BIOS ROM, figure 2, wherein PC1-PCn are associated communication devices figure 4, and a plurality of computers are upgraded, col. 5 lines 25-30);

b. receiving a device ID from to at least one communications card (each device transfers a model ID to the host computer, col. 4, lines 50-53 and col. 5, lines 15-16);

c. initiating a firmware upgrade without an administrator (the personal computer request their BIOS to be upgraded col. 4, lines 28-37) based on the device ID of each of the at least one communication card (col. 4, lines 45-60);

d. selecting a firmware program (BIOS) associated with the device ID of each of the at least one associated communication card that require a firmware upgrade (col. 4, lines 54-60);

e. downloading the software program associated with the device ID to each of the at least one associated communication card that requires a firmware upgrade(col. 4, lines 57-60 and col. 5, line 19-24).

Ha does not disclose that the management card is with a rack chassis. Ha also does not expressly disclose receiving a device ID from the at least one communication card ***to determine whether any of the one or more associated devices require a firmware upgrade*** [emphasis added].

AAPA teaches that rack chassis are popular in network systems where multiple communication links end and provide the advantage of having density and central management capability of a line card chassis (paragraph 0003 and 0007).

It would have been obvious to one of ordinary skill in the art, having the teaching of Ha and AAPA before them at the time the invention was made, to modify Ha to be used in a rack chassis environment as taught by AAPA, wherein the system is a communications rack chassis.

One of ordinary skill would have made the modification because rack chassis are popular in network systems and provide the advantage of having density and central management.

Itoh teaches receiving a device ID (verifying a model and production date) from each of the one or more associated communication devices (computer) to determine whether any of the one or more associated devices require a firmware upgrade (col. 18, lines 36-42). The system of Itoh is similar to that of Ha in that Itoh also teaches a system that updates firmware for a particular device. As taught by Itoh using both the model number and revision number provides the advantage of determining if the of the firmware is necessary thereby reducing any unnecessary downloads (col 18, lines 38-42).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Itoh before them at the time the invention was made, to modify the device ID of Ha to include revision number to obtain a device ID indicating a model and a revision number as taught the by Itoh.

One of ordinary skill in the art would have been motivated to make this modification in order to determine to if the update is necessary thereby reducing any unnecessary downloads.

49. Regarding claim 21, Ha taught the method according to claim 20, as described above. Ha further teaches storing the downloaded software program into a RAM memory of each of the one or more communication devices. Ha further teaches a RAM memory coupled to the processor, where the processor stores the downloaded firmware into the RAM memory. Specifically, Ha

describes downloading firmware using a floppy disk, while the computer is normal operation, and while the computer is booting. Ha teaches that during the download of firmware from a floppy disk the firmware is downloaded into the RAM of the communication device. Ha describes that during the download of firmware during a boot that firmware is downloaded into "memory". This memory is interpreted to be RAM memory because is not the BIOS ROM, no mention of using the system ROM 11 is suggested. Therefore, downloading software from any source in Ha would follow that the same procedure would be done as taught by the download using a floppy disk. Also, figure shows that the RAMs are the only memories of the communication devices (PC1-PCn) connected to the communication port, implying that the RAM memories would receive the downloaded firmware. Thus, Ha teaches storing the download firmware into a RAM memory.

50. Regarding claim 22, Ha taught the method according to claim 20, as described above. Ha further taught storing the downloaded software program into a non-volatile machine usable storage media of each of the one or more communication devices (written into the BIOS ROM, col. 5, lines 20-24).

51. Regarding claim 23, Ha together with AAPA taught the method according to claim 20, as described above.

Ha does not disclose sending a version identifier of stored firmware from a non-volatile machine usable storage media of each of the at leas one communication card to the management card.

Itoh teaches sending a version identifier of stored firmware from a non-volatile machine usable storage media of each of the at leas one communication card to the management card (model number and version number of BIOS, col. 18, lines 36-42).

52. Regarding claim 25, Ha taught the method according to claim 20, as described above. Ha further teaches updating a repository of software programs stored on the management device (col. 4, lines 20-27 and col. 4, lines 41-53). Specifically, Ha teaches that the communications management device is used to update (upgrade) the communication devices when requested. It would necessitate that the store of firmware at the communications management device of Ha would need to be updated. If the store of firmware in Ha were not updated the management device of Ha would only be able to perform an update only once and this is not suggested in Ha. Ha does expressly disclose wherein the repository is on a management card. Specifically, Ha discloses that repository is on the management device as a hard disk drive. In other words, Ha is directed toward updating firmware at remote computers by a repository on a Host HDD (figure 4) rather than using a floppy disk with updated firmware (col. 1, lines 16-31). Ha further teaches that an advantage of doing so is that it is less time-consuming and does not require using a floppy disk (col. 1, lines 32-39). In order to provide an update from the repository rather than a floppy disk it is necessary that the repository be updated otherwise there would be no way to update the firmware other than a first time, which is clearly not the intent of Ha.

53. Regarding claim 26, Ha taught the device according to claim 25, as described above. Ha does not disclose wherein the repository of software programs is updated remotely across a communications link of the communications system. Ha only teaches that the repository is updated.

The examiner takes official notice of updating software across a communications link of the communication system. It is well known to those of ordinary skill in the art that software updated remotely across a communications link provides the advantage of being faster to update. Specifically, no extra media such as floppy disks, CDs, or the like are needed to be sent to remote locations for software updates, which takes time to transport. Software would be available virtually instantaneously over a communications network.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and the knowledge of updating software remotely across a communications link before them at the time the invention was made, to modify the system of Ha by updating his repository remotely over a communication link of the communication system.

One of ordinary skill in the art would have been motivated to make the modification for the purposes of being able to update the repository of Ha faster as those of ordinary skill understand and appreciate.

54. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ha and Applicant's Admitted Prior Art (AAPA) and Itoh in further view Ishibashi.

55. Regarding claim 24, Ha together with AAPA taught the method according to claim 20 as set forth hereinabove. Ha together with AAPA and Itoh do not disclose wherein the boot PROM and the device ID are stored on a single machine readable storage medium of each of the at least one communication card.

Ishibashi teaches a device ID stored on a non-volatile machine usable storage media on which the boot PROM is also located (the device ID is stored on a BIOS-ROM and managed by

a BIOS, col. 6 lines 17-35 and figure 2). Ishibashi teaches a system that is similar to that of Ha in that both systems have a device ID and both use the BIOS for some type of management of the device ID. It appears that the feature of having the device ID stored on the BIOS provides the advantage of providing fast and easy access to the device ID because the BIOS is the used to control hardware and is the first firmware used when the activating the communication device. Further, the BIOS-ROM would maintain the information when power is removed. Further, Ishibashi teaches that the protection of digital contents against improper use is improved (col. 1 lines 43-48 and col. 3, lines 27-35).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh and Ishibashi before them at the time the invention was made, to modify the BIOS-ROM of Ha to include storing the device ID.

One of ordinary skill in the art would have been motivated to make this modification in order provide easy access to the device ID. This would be especially true when modifying Ha because only the BIOS-ROM would need to be accessed when booting the computer rather than more than one other memory device holding the information reducing the number of reads during the process, allowing the ID to be retained after power is removed, and improve the protection of digital contents against improper use.

56. Claims 34-37 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha in further view Itoh and Comer, "Computer Networks and Internets".

57. Regarding claim 34, Ha teaches a method of operating a communication device with a boot PROM (BIOS ROM 12, figure 1), comprising

a. initializing the communication device (general computer system, figures 1 and 2) from routines stored on the boot PROM (col. 5, lines 5-16);

b. reading a device ID indicating a model from the communication device (col. 5, lines 15-16);

c. sending the device ID to a management (host computer) device over a communication link (col. 5, lines 15-16);

d. initiating a firmware upgrade without an administrator (the personal computers request their BIOS to be upgraded col. 4, lines 28-37) based on the device ID (col. 4, lines 45-60);

e. selecting a firmware for the communication device at the management device (col. 4, lines 54-57);

f. teaches downloading the firmware to the communication device (col. 5, lines 17-19);

g. running the firmware on the communication device (by rebooting the computer, col. 5, lines 23-24).

Ha does not disclose wherein the device ID indicates a revision number from the communication device.

Itoh teaches wherein a device ID indicates a model number and a revision number (model number and version number of BIOS, col. 18, lines 36-42). The system of Itoh is similar to that of Ha in that Itoh also teaches a system that updates firmware for a particular device. As taught by Itoh using both the model number and revision number provides the advantage of determining if the of the firmware is necessary (col. 18, lines 38-42).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Itoh before them at the time the invention was made, to modify the device ID of Ha to include revision number to obtain a device ID indicating a model and a revision number as taught the by Itoh.

One of ordinary skill in the art would have been motivated to make this modification in order to determine to if the update is necessary.

Ha also does not disclose wherein the communication device is an asymmetrical digital subscriber line (ADSL) communication device.

Comer teaches that an ADSL communication device would provide the advantage for typical users that receive more information than they send page 156, fourth and fifth paragraph, resulting in optimized data transfer.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Comer before them at the time the invention was made to modify Ha to use an ADSL communication device as his communication device.

One of ordinary skill in the art would have been motivated to make the modification in order to optimize data transfer for users that typically receive much more information than they receive resulting in optimized data transfer.

58. Regarding claim 35, Ha together with Itoh and Comer taught the method according to claim 34 as described above. Ha further teaches storing the downloaded firmware into a RAM memory (col. 3, lines 58-64, col. 4, lines 57-63, col. 5, lines 18-24 and figure 4). Specifically, Ha describes downloading firmware using a floppy disk, while the computer is normal operation, and while the computer is booting. Ha teaches that during the download of firmware from a

floppy disk the firmware is downloaded into the RAM of the communication device. Ha describes that during the download of firmware during a boot that firmware is downloaded into "memory". This memory is interpreted to be RAM memory because is not the BIOS ROM, no mention of using the system ROM 11 is suggested. Therefore, downloading software from any source in Ha would follow that the same procedure would be done as taught by the download using a floppy disk. Also, figure shows that the RAMs are the only memories of the communication devices (PC1-PCn) connected to the communication port, implying that the RAM memories would receive the downloaded firmware. Thus, Ha teaches storing the download firmware into a RAM memory.

59. Regarding claim 36, Ha together with Itoh and Comer taught the method according to claim 34 as described above. Ha further teaches storing the downloaded firmware into a non-volatile machine usable storage media (BIOS ROM, col. 5, lines 22-23).

60. Regarding claim 37, Ha together with Itoh and Comer taught the method according to claim 34, as described above. Itoh further teaches sending a version identifier of a stored firmware from a non-volatile machine usable storage media to the management device (version number is transmitted in order to receive a new BIOS, col. 18 lines 28-36).

61. Regarding claim 39, Ha together with Itoh and Comer taught the method according to claim 34, as described above. Ha teaches wherein the device ID identifies a model of the ADSL communication device (Ha, col. 5, lines 15-16) and Itoh teaches wherein a model and revision of the ADSL device (Itoh, col. 18, lines 36-42).

62. Regarding claim 40, Ha together with Itoh and Comer taught the method according to claim 34 as described above. Itoh further teaches wherein sending the device ID to a

management device over a communications link further comprises sending the device ID and configuration information. Wherein a revision as disclosed by Itoh contains information a the configuration and is thus configuration information.

63. Claims 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha, Itoh and Comer, "Computer Networks and Internets" in further view of Ishibashi.

Neither Ha nor Itoh nor Comer discloses wherein the boot PROM and device ID are stored on a single machine readable storage medium of the ADSL communication device.

Ishibashi teaches a device ID stored on a single machine readable storage media with the boot PROM (the device ID is stored on a machine readable storage media "BIOS-ROM" which is a boot PROM and managed by a BIOS, col. 6 lines 17-35 and figure 2). Ishibashi teaches a system that is similar to that of Ha in that both systems have a device ID and both use the boot PROM for some type of management of the device ID. It appears that the feature of having the device ID stored on the machine readable storage media provides the advantage of easy access to the device ID because the BIOS on the machine readable storage media is used to control hardware. Also, the machine readable storage media would maintain the information when power is removed. Further, Ishibashi teaches that the protection of digital contents against improper use is improved (col. 1 lines 43-48 and col. 3, lines 27-35).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh and Ishibashi before them at the time the invention was made, to modify the boot Prom BIOS-ROM of Ha to include storing the device ID.

One of ordinary skill in the art would have been motivated to make this modification in order provide easy access to the device ID. This would be especially true when modifying Ha because only the boot PROM would need to be accessed when booting the computer rather than more than one other memory device holding the information reducing the number of reads during the process, allowing the ID to be retained after power is removed, and improve the protection of digital contents against improper use.

Response to Arguments

64. All rejections of claim limitations as filed prior to Amendment dated 6/22/05 not argued in their entirety or substantively in the response to the prior Office action have been conceded by Applicant and the rejections are maintained from henceforth.

65. The common knowledge or well-known in the art statement referring to updates software over communication links and memory devices being using different types of software (i.e. flash memory being used in place of a hard disk drive) is taken to be admitted prior art because applicant failed to traverse the examiner's assertion of official notice.

66. Applicant's arguments filed 1-40 and 69-81 have been fully considered but they are not persuasive.

67. Applicants argue in substance that Ha does not teach or suggest initiating a firmware upgrade without an administrator based on the device ID. Specifically, applicants argue that Ha only teaches using a floppy disk to update firmware that requires an administrator. The examiner does not disagree that Ha teaches updating firmware with a floppy disk that requires an administrator. However, that is only one embodiment disclosed by Ha. In fact, Ha teaches that

using a floppy disk is time consuming and describes at least one other embodiment that does not require a floppy disk or an administrator beginning on col. 4, line 6 through col. 5, line 37. Specifically, at col. 4, lines 45-53, Ha teaches that the computer determines or a continuous check is made to determine whether the BIOS is request to be updated. Clearly there is not an administrator for this procedure.

68. Applicants argue in substance that Ha does not teach or suggest storing downloaded software program into a RAM. Specifically, the applicants argue that the examiner's 102(e) argument is an unfounded conclusory statement based on hindsight reasoning. The examiner's does not agree. In the last office action the examiner relied upon figure 4. Figure 4 suggests that that software is stored in a RAM upon its download (depicted by the dotted line from the mux to the RAMs of PC1-PCn). The applicants are further directed to col. 4, lines 6-39. It is clear that the software is downloaded and stored in a RAM (the BIOS is loaded into the RAM, col. 4, lines 20-40).

69. Applicants argue in substance that Ha does not teach or suggest updating a resository of softwared programs stored on the management device and that the 102(e) rejection is unfounded and is a conclusory statement based on hindsight reasoning. The examiner does not agree. The examiner stated that Ha does not discuss further details of the store of firmware at the communications device (HDD at the host, figure 4), however this does not mean that structure is not inherent or suggested. Specifically, Ha teaches updating software over a communications link rather than by an administrator using a floppy disk having the updated software (col. 3, lines 65 through col. 4, line 5). As one of ordinary skill in the art would recognize, Ha is directed toward updating firmware remotely. This requires having the latest firmware, as would be as in

the case with a floppy disk. If updates are to be made the floppy disks must be updated, as would the respository (HDD) when employed in place of the floppy disks. This must be the case because if the repository were not updated there would only be one time when the device would download the firmware (at an initial download). If that were the case there would be no further updates and Ha would not make reference to an "upgrade". Clearly, Ha is directed toward providing multiple updates to the device, which necessitates updating the repository. Using this logic it is clear that the 102 rejection is proper, not conclusory and is not based on hindsight reasoning.

70. Applicants argue in substance that the basis for combining Ha and Ishibashi under 103 (a) is unfounded. Specifically, applicants argue the statement "would have been obvious to one of ordinary skill in the art" is a conclusory based on hindsight reasoning. The applicants further argue in substance that combining prior art references without requisite suggestion, teaching motivation impermissibly takes the inventor's disclosure as a blueprint for piecing together the prior at to defeat patentability. The examiner does not agree. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The reasoning does not take knowledge gleaned only from the applicant's disclosure. It is not believed that the reasoning was not gleaned from the applicant's disclosure, if so the examiner

requests the applicants to cited where in the specification it was taken. Further, it is believed that this argument is moot as applicant's amendment necessitated new grounds of rejection. The examiner, as set forth hereinabove, have further include another motivation for combining, see rejection of claim 31.

Conclusion

71. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James K. Trujillo whose telephone number is (571) 272-3677. The examiner can normally be reached on M-F (7:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Trujillo
August 24, 2005